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Appl. Ser. No.: 09/841,296
Att. Dkt. No.: 5659-03600

Amendments to the Claims:

This listing of claims will replace all prior versions and/or listings of claims in the application:

Listing of Claims:

1-4402. (cancelled)

4403. (original): A condensable mixture produced from a portion of a hydrocarbon containing formation, comprising:

olefins, wherein about 0.1 % by weight to about 15 % by weight of the condensable mixture comprises olefins;

oxygenated hydrocarbons, wherein less than about 15 % by weight of the condensable mixture comprises oxygenated hydrocarbons; and

asphaltenes, wherein less than about 0.1 % by weight of the condensable mixture comprises asphaltenes.

4404. (original): The mixture of claim 4403, wherein the condensable mixture further comprises hydrocarbons having a carbon number of greater than approximately 25, and wherein less than about 15 weight % of the hydrocarbons in the mixture have a carbon number greater than approximately 25.

4405. (original): The mixture of claim 4403, wherein about 0.1 % by weight to about 5 % by weight of the condensable mixture comprises olefins.

4406. (original): The mixture of claim 4403, wherein the condensable mixture further comprises non-condensable hydrocarbons, wherein the non-condensable hydrocarbons comprise ethene and ethane, and wherein a molar ratio of ethene to ethane in the non-condensable hydrocarbons ranges from about 0.001 to about 0.15.

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4407. (previously presented): The mixture of claim 4403, wherein the condensable mixture further comprises nitrogen containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable mixture is nitrogen.

4408. (previously presented): The mixture of claim 4403, wherein the condensable mixture further comprises oxygen containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable mixture is oxygen.

4409. (previously presented): The mixture of claim 4403, wherein the condensable mixture further comprises sulfur containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable mixture is sulfur.

4410. (original): The mixture of claim 4403, wherein the condensable mixture further comprises oxygen containing compounds, wherein about 5 % by weight to about 30 % by weight of the condensable mixture comprise oxygen containing compounds, and wherein the oxygen containing compounds comprise phenols.

4411. (original): The mixture of claim 4403, wherein the condensable mixture further comprises aromatic compounds, and wherein greater than about 20 % by weight of the condensable mixture are aromatic compounds.

4412. (original): The mixture of claim 4403, wherein the condensable mixture further comprises multi-ring aromatics, and wherein less than about 5 % by weight of the condensable hydrocarbons comprises multi-ring aromatics with more than two rings.

4413. (original): The mixture of claim 4403, wherein the condensable mixture further comprises cycloalkanes, and wherein about 5 % by weight to about 30 % by weight of the condensable mixture are cycloalkanes.

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4414. (currently amended): The mixture of claim 4403, wherein the condensable mixture comprises non-condensable hydrocarbons, and wherein the non-condensable hydrocarbons comprise molecular hydrogen, and wherein the molecular hydrogen is greater than about 10 % by volume of the non-condensable hydrocarbons at 25 °C and one atmosphere absolute pressure, and wherein the molecular hydrogen is less than about 80 % by volume of the non-condensable hydrocarbons at 25 °C and one atmosphere absolute pressure.

4415. (original): The mixture of claim 4403, further comprising ammonia, and wherein greater than about 0.05 % by weight of the produced mixture is ammonia.

4416. (original): The mixture of claim 4403, further comprising ammonia, and wherein the ammonia is used to produce fertilizer.

4417. (original): The mixture of claim 4403, wherein about 0.1 % by weight to about 2 % by weight of the condensable mixture comprises olefins.

4418. (original): A condensable mixture produced from a portion of a hydrocarbon containing formation, comprising:

olefins, wherein about 0.1 % by weight to about 2 % by weight of the condensable mixture comprises olefins;

multi-ring aromatics, wherein less than about 2 % by weight of the condensable mixture comprises multi-ring aromatics with more than two rings; and

oxygenated hydrocarbons, wherein greater than about 25 % by weight of the condensable mixture comprises oxygenated hydrocarbons.

4419. (original): The mixture of claim 4418, further comprising hydrocarbons having a carbon number of greater than approximately 25, wherein less than about 5 weight % of the hydrocarbons in the mixture have a carbon number greater than approximately 25.

4420. (previously presented): The mixture of claim 4418, wherein the condensable mixture

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further comprises nitrogen containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable hydrocarbons is nitrogen.

4421. (previously presented): The mixture of claim 4418, wherein the condensable mixture further comprises oxygen containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable hydrocarbons is oxygen.

4422. (previously presented): The mixture of claim 4418, wherein the condensable mixture further comprises sulfur containing compounds, and wherein less than about 1 % by weight, when calculated on an atomic basis, of the condensable hydrocarbons is sulfur.

4423. (original): The mixture of claim 4418, wherein the condensable mixture further comprises oxygen containing compounds, wherein about 5 % by weight to about 30 % by weight of the condensable hydrocarbons comprise oxygen containing compounds, and wherein the oxygen containing compounds comprise phenols.

4424. (original): The mixture of claim 4418, wherein the condensable mixture further comprises aromatic compounds, and wherein greater than about 20 % by weight of the condensable mixture are aromatic compounds.

4425. (original): The mixture of claim 4418, wherein the condensable mixture further comprises condensable hydrocarbons, and wherein less than about 0.3 % by weight of the condensable hydrocarbons are asphaltenes.

4426. (original): The mixture of claim 4418, wherein the condensable mixture further comprises cycloalkanes, and wherein about 5 % by weight to about 30 % by weight of the condensable hydrocarbons are cycloalkanes.

4427. (original): The mixture of claim 4418, further comprising ammonia, wherein greater than about 0.05 % by weight of the produced mixture is ammonia.

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4428. (original): The mixture of claim 4418, further comprising ammonia, wherein the ammonia is used to produce fertilizer.

4429-5395. (cancelled)

5396. (new): A condensable mixture produced from a portion of a hydrocarbon containing formation, comprising:

olefins, wherein about 0.1 % by weight to about 15 % by weight of the condensable mixture comprises olefins;

oxygenated hydrocarbons, wherein less than about 15 % by weight of the condensable mixture comprises oxygenated hydrocarbons;

multi-ring aromatics, wherein less than about 2 % by weight of the condensable mixture comprises multi-ring aromatics with more than 2 rings; and

wherein the hydrocarbons of the condensable mixture have a hydrogen to carbon atomic ratio of greater than about 1.7.

5397. (new): The condensable mixture of claim 5396, wherein the oxygenated hydrocarbons comprise phenols.

5398. (new): The condensable mixture of claim 5396, wherein the condensable mixture comprises nitrogen containing compounds.

5399. (new): The condensable mixture of claim 5396, wherein the condensable mixture comprises sulfur containing compounds.

5400. (new): The condensable mixture of claim 5396, wherein less than 5% by weight of the condensable mixture comprises olefins.